SCIENCE ABSTRACTS

SECTION A.—PHYSICS

VOL. XXXVII

1934

EDITED AND ISSUED BY

THE INSTITUTION OF ELECTRICAL ENGINEERS,

SAVOY PLACE, VICTORIA EMBANKMENT, LONDON, W.C.2

IN ASSOCIATION WITH

THE PHYSICAL SOCIETY,

THE AMERICAN PHYSICAL SOCIETY,

THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

AND L'ASSOCIAZIONE ELETTROTECNICA ITALIANA.

EASTMAN KODAK CO.
RESEARCH LIBRARY
KODAK PARK

LONDON:

E. & F. N. SPON, LIMITED, 57 HAYMARKET, S.W.1

NEW YORK:

ENGINEERS' BOOK SHOP, 227 PARK AVENUE

ERRATA.

SECTION A.—PHYSICS.

1933.

Abstract No. 4861, line 6; *for* $N^{14}+n \rightarrow N^{15}+He^{4}$ *read* $N_{6}^{14}+n_{1}^{1} \rightarrow N_{1}^{15} \rightarrow B_{1}^{11}+He_{2}^{4}$.

Author Index, *p.* 1638; *under* E. Rupp, *for* electron diffraction, 3740, *read* electron diffraction, 3804.

1934.

Abstract No. 528, line 2; *for* No. 156, *read* No. 456.

Abstract No. 573, line 7; *for* α-radiation, *read* γ-radiation.

Abstract No. 1552, line 1; *for* Kustnetzow, *read* Kusnetzow.

Abstract No. 1655, line 2; *for* H. Grube, *read* G. Grube.

Abstract No. 1820, line 1; *insert* G. R. Lusby as additional author.

Abstract No. 3553, line 6; *for* coefficient $f_{H+} \cdot f_{A-}$ *read* coefficient $\sqrt{f_{H+} \cdot f_{H-1}}$.

Abstract No. 3921.—The first sentence should read: "These materials are ternary alloys Fe-Ni-Cu and can be prepared as ring-sheets and strips."

Abstract No. 3932, page 931, line 3; *for* Sm^{+3}, *read* Sm^{3+}.

Abstract No. 4410, lines 10 and 14; *for* (III) *read* (III).

Abstract No. 4764, lines 4 and 5; *for* Robn, *read* Rohn.

ACCESSION No. A5279

EDITOR.

H. G. SOLOMON, M.I.E.E.

ABSTRACTORS.

G. E. Allan, D.Sc.
R. F. Allen, B.Sc.
C. B. Allsopp, M.A., Ph.D.
J. P. Andrews, D.Sc., F.Inst.P.
W. R. Angus, M.A., B.Sc., Ph.D.
N. F. Astbury, M.A.
R. d'E. Atkinson, M.A., Ph.D.
C. O. Bannister, A.R.S.M.
S. G. Barker, Ph.D., F.Inst.P.
H. Barrell, B.Sc., A.R.C.S., D.I.C.
F. S. Barton, M.A., B.Sc., F.Inst.P.
G. E. Bell, B.Sc., A.Inst.P.
J. E. Bennett, M.A., A.M.I.E.E.
P. H. Bigg, B.Sc.
N. M. Bligh, A.R.C.S., A.I.C.
F. J. Brislee, D.Sc., F.I.C.
H. L. Brose, D.Sc., D.Phil., M.A., F.Inst.P.
H. M. Browning, M.Sc., Ph.D., F.Inst.P.
J. M. Bruckshaw, M.Sc.
L. G. Carpenter, B.A., B.Sc.
F. C. Champion, M.A., Ph.D.
L. V. Chilton, M.A., F.Inst.P.
J. S. Clark, B.Sc., A.R.C.S., D.I.C.
J. E. R. Constable, Ph.D., M.A., B.Sc.
A. Daniell, M.A., D.Sc.
L. Essen, B.Sc.
M. A. Evershed, F.R.A.S.
J. Ewles, M.A.
D. H. Follett, M.A., A.Inst.P.
R. C. Fox, Ph.D., B.Sc.(Eng.).
A. E. M. Geddes, M.A., D.Sc.
W. H. George, M.Sc., Ph.D., F.Inst.P.
H. F. Gillbe, Ph.D., B.Sc.
E. Griffiths, D.Sc., F.R.S.
L. Hartshorn, D.Sc., A.R.C.S., D.I.C.
A. Harvey, Ph.D., B.Sc., F.Inst.P.
H. H. Hodgson, Ph.D., M.A., B.Sc.
E. J. Irons, Ph.D., F.Inst.P.
W. Jevons, D.Sc., Ph.D.
T. I. Jones, M.Sc., A.R.C.S., D.I.C.
J. Kaye, B.Sc.
J. E. Keyston, B.Sc., D.Phil.
E. Lancaster-Jones, M.A.
R. Lang, B.Sc., Ph.D., A.Inst.P.
A. S. C. Lawrence, Ph.D.
B. J. Leggett, M.R.C.S.
T. M. Lowry, D.Sc., F.R.S.
A. J. McConnell, D.Sc., F.T.C.D.
T. L. MacDonald, M.A.
G. C. McVittie, M.A., Ph.D., F.R.A.S.
A. S. D. Maunder, F.R.A.S.
A. C. Menzies, M.A., D.Sc.
W. E. Perry, B.Sc.
T. H. Pope, B.Sc.
R. W. Powell, B.Sc.
F. I. G. Rawlins, M.Sc., F.Inst.P.
R. S. Read, M.A., B.Sc.
W. A. Richardson, B.A., D.Sc., B.Sc.(Eng.), F.G.S.
J. E. Roberts.
E. Rushton, B.Sc.
C. A. Silberrad, B.A., B.Sc.
F. Simeon, D.Sc.
H. J. H. Starks, Ph.D., A.Inst.P.
J. J. Stewart, M.A., B.Sc.
W. S. Stiles, Ph.D., B.Sc.
J. Thewlis, M.Sc.
J. S. G. Thomas, D.Sc.
G. F. P. Trubridge, M.Sc.
P. Vigoureux, M.Sc., A.C.G.I., D.I.C., A.M.I.E.E.
J. W. T. Walsh, M.A., D.Sc.
W. H. Ward, B.Eng.
C. E. Webb, B.Sc., A.C.G.I., D.I.C., A.M.I.E.E.
F. J. Wilkins, M.Sc., Ph.D.
A. Wilkinson, B.Sc.
A. B. Wood, D.Sc.
L. A. Woodward, B.A., Ph.D.
W. D. Wright, Ph.D., A.R.C.S., D.I.C.

EDITOR.

H. G. SOLOMON, M.I.E.E.

ABSTRACTORS.

G. B. Adam, D.Sc.
R. F. Allen, B.Sc.
C. B. Atkins, M.A., Ph.D.
H. Andrews, D.Sc., F.Inst.P.
W. E. Ayres, M.A., B.Sc., F.L.S.
N. P. Bedway, M.A.
R. W. Atkinson, M.A., Ph.D.
C. O. Bannister, A.R.C.S.
S. G. Barnes, Ph.D., B.Inst.P.
H. Bassett, D.Sc., A.R.C.S., D.I.C.
E. S. Beck, M.A., D.Sc., F.Inst.P.
C. E. Bell, B.Sc., A.Inst.P.
J. F. Bennett, M.A., M.I.E.E.
F. H. Bigg, B.Sc.
N. M. Blair, A.R.C.S., A.I.C.
F. J. Brislee, D.Sc., F.I.C.
H. L. Brose, D.Sc., D.Phil., M.A., F.Inst.P.
H. M. Brownlie, M.Sc., Ph.D.
J. Burke.
J. H. Burnham, M.Sc.
J. C. Cameron, D.Sc.
F. C. Cannon, M.A., Ph.D.
L. V. Chilton, M.A., F.Inst.P.
J. S. Clegg, B.Sc., A.R.C.S., D.I.C.
J. F. C. Conybeare, Ph.D., M.A., B.Sc.
A. Dorman, M.A., B.Sc.
L. Dunn, B.Sc.
M. A. Everson, F.R.A.S.
J. Ewing, M.A.
D. H. Fellner, M.A., M.Inst.E.
R. C. Fox, Ph.D., B.Sc., F.Sc.
A. R. M. Greene, M.A., B.Sc.
W. H. Greene, M.Sc., Ph.D., F.I.C., M.R.
[illegible]
E. Griffith, B.Sc., F.R.
J. Hartshorn, D.Sc., A.R.C.S., D.I.C.
A. Harvey, Ph.D., B.Sc., F.Inst.P.
H. H. Hodgson, Ph.D., M.A., B.Sc.
R. J. Jones, M.Sc., F.Inst.P.
W. Jones, D.Sc., F.R.S.
T. L. Jones, M.Sc., A.R.C.S., D.I.C.
J. Kerr, B.Sc.
J. E. Kynnon, B.Sc., D.Phil.
E. Lancaster-Jones, M.A.
R. Lim, B.Sc., Ph.D., A.Inst.P.
J. S. C. Lawrence, F.R.D.
S. J. Lawrey, M.R.C.S.
T. M. Lowry, D.Sc., F.R.S.
A. J. McConnell, D.Sc., F.I.C.D.
T. E. McGowan, M.A.
J. C. Morrison, M.A., F.R.D., F.R.A.S.
S. G. Mudge, F.R.A.S.
A. C. Murray, M.A., D.Sc.
W. E. Lean, B.Sc.
F. P. Pope, F.C.S.
R. W. Powell, B.Sc.
J. C. Rawling, M.Sc., F.Inst.P.
R. S. Rae, M.A., F.R.S.
W. A. Robinson, B.A., D.Sc.
H. S. Ross, F.C.S.
[illegible]
F. W. Sears, B.Sc.
C. A. Silcocks, B.A., B.Sc.
T. Smith, D.Sc.
M. I. H. Sykes, Ph.D., A.Inst.P.
[illegible] Tarrant, M.A., B.Sc.
W. S. Stone, Ph.D., B.Sc.
J. Tunnicliffe, M.A.
J. S. de Tuscan, D.Sc.
G. F. P. Thomson, M.Sc.
F. Vernon, M.Sc., A.C.G.I., D.I.C., A.M.I.C.E.
J. W. T. Walsh, M.A., D.Sc.
W. H. Ward, B.Sc.
C. R. Weber, B.Sc., A.C.G.I., D.I.C., A.M.I.E.E.
F. J. Wilson, M.Sc., F.R.D.
A. Winkler, B.Sc.
A. J. Wood, D.Sc.
J. A. Woodward, B.A., Ph.D.
W. E. Wright, Ph.D., A.R.C.S., D.I.C.

LIST OF JOURNALS AND THEIR ABBREVIATIONS

A star (*) indicates that the Journals so marked are received only occasionally.

Abbreviations.	Full Title and Address.
Acad. Polonaise Sci. et Lettres, Bull.	Bulletin International de l'Academie des Sciences et des Lettres. Gebethner et Wolff, Rynek Gl., Cracovie, Poland.
Accad. d'Italia, Mem.	Memorie della Reale Accademia d'Italia, Rome, Italy.
Accad. Lincei, Atti	Atti della Reale Accademia Nazionale dei Lincei. Dott. Giovanni Bardi, Piazza Madama 19-20, Rome (111), Italy.
Accad. Sci. Torino, Atti	Atti della Reale Accademia delle Scienze di Torino. Libreria Fratelli Bocca, Via Carlo Alberto 3, Turin, Italy.
A.C.E.C.	Ateliers de Constructions Electriques de Charleroi. Route de Philippeville, Charleroi, Belgium.
Acoustical Soc. of America, J.	Journal of the Acoustical Society of America. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
Acta Physica Polonica	Acta Physica Polonica, Institut de Physique Expérimentale de l'Université, 69, rue Hoza, Warsaw, Poland.
A.E.G. Mitt	A.E.G. Mitteilungen. Die technische Auskunftstelle der A.E.G. Friedrich-Karl-Ufer 2-4, Berlin, N.W.40.
Akad. Wiss. Wien, Ber.	Sitzungsberichte der Akademie der Wissenschaften in Wien. Mathematisch-naturwissenschaftlichte Klasse. Universitätsplatz 2, Vienna I.
Alta Frequenza	Alta Frequenza. Associazione Elettrotecnica Italiana, Via San Paolo N.10, Milan (2/2), Italy.
Am. Acad., Proc.	Proceedings of the American Academy of Arts and Sciences. 28, Newbury Street, Boston, Mass., U.S.A.
Am. Chem. Soc., J.	Journal of the American Chemical Society. Charles L. Parsons, Mills Building, Washington, D.C., U.S.A.
Am. Electrochem. Soc., Trans.	Transactions of the American Electrochemical Society. Columbia University, New York, U.S.A.
Am. Geophys. Union, Trans.	Transactions of the American Geophysical Union, National Research Council, Constitution Avenue and 21st Streets, Washington, D.C., U.S.A.
Am. Illum. Eng. Soc., Trans.	Transactions of the American Illuminating Engineering Society. Mt. Royal & Guilford Aves., Baltimore, Maryland, U.S.A.
Am. J. Sci.	American Journal of Science. New Haven, Connecticut, U.S.A.
Am. J. of Roentgenology and Radium Therapy	The American Journal of Roentgenology and Radium Therapy. Charles C. Thomas, 220, East Monroe Street, Springfield, Illinois, U.S.A.
Am. Phil. Soc., Proc.	Proceedings of the American Philosophical Society. 222, Drexel Building, Philadelphia, Pa., U.S.A.

Abbreviations.	Full Title and Address.
Am. Phys. Teacher	The American Physics Teacher. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
Ann. d. Physik	Annalen der Physik. J. A. Barth, Salomonstrasse 18B, Leipzig, C1, Germany.
Ann. de Physique	Annales de Physique. Masson et Cie, Libraires de l'Académie de Médecine, 120, Boulevard Saint-Germain, Paris (VIe).
Ann. Soc. Sci. de Bruxelles	Annales de la Société Scientifique de Bruxelles. 2, Rue de Manège, Louvain, Belgium.
Annales des P.T.T.	Annales des Postes, Télégraphes et Téléphones. Librairie de l'Enseignement Technique, 3, Rue Thénard, Paris (5e).
Arch. des Sciences	Archives des Sciences Physiques et Naturelles. Institut de Physique de l'Université, Geneva, Switzerland.
Arch. f. Elektrot	Archiv für Elektrotechnik. J. Springer, Linkstrasse 23–24, Berlin, W.9.
Arkiv f. Kem. Min. och Geologie, Stockholm.	Arkiv för Kemi, Mineralogi och Geologie, Almqvist and Wiksells Boktryckeri-A.-B., Stockholm, Sweden.
Arkiv f. Mat., Astron., och Fysik, Stockholm	Arkiv för Matematik, Astronomi, och Fyski. Almqvist & Wiksells Boktrycheri-A.-B., Stockholm, and Wheldon and Wesley, Ltd., 2, 3 and 4, Arthur Street, London, W.C.2.
A.S.E.A. J.	A.S.E.A. Journal. Allmänna Svenska Elektriska A.B., Västerås, Sweden, and A.S.E.A. Electric Ltd., 5, Chancery Lane, London, W.C.2.
A.S.M.E., Trans.	Transactions of The American Society of Mechanical Engineers, 29, West 39th Street, New York, U.S.A.
Assoc. Ing. El. Liége, Bull.	Bulletin de l'Association des Ingénieurs Électriciens sortis de l'Institut Électrotechnique Montefiore. 31, Rue Saint Gilles, Liége, Belgium.
Assoc. Suisse Élect., Bull.	Association Suisse des Électriciens Bulletin. Secretariat General de l'A.S.E. et de l'U.C.S., Seefeldstrasse 301, Zürich 8, Switzerland.
Astron. Iakttagelser och Undersökning. Stockholms, Obs.	Astronomiska Iakttagelser och Undersökningar Stockholms Observatorium. Almqvist and Wiksells Boktryckeri-A.-B., Stockholm, Sweden.
Astron. J.	The Astronomical Journal. Dudley Observatory, Albany, New York, U.S.A.
Astrophys. J.	The Astrohysical Journal. The University of Chicago Press, 5750 Ellis Avenue, Chicago, Illinois, U.S.A.
A.T.M.	Archiv für technisches Messen. R. Oldenbourg, Glückstrasse 8, Munich 32, Germany.
Beitr. z. angew. Geophys.	Beiträge zur Angewandten Geophysik. Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6, Leipzig, C1, Germany.
Bell System Techn. J.	Bell System Technical Journal. The American Telephone and Telegraph Co., 195, Broadway, New York, U.S.A.
Bell Telephone Quarterly	Bell Telephone Quarterly. The American Telephone and Telegraph Company, 195, Broadway, New York, U.S.A.
Brit. J. of Radiology	The British Journal of Radiology. The British Institute of Radiology, 32, Welbeck Street, London, W.1.
Brown Boveri Rev.	The Brown Boveri Review. Richardsons Westgarth-Brown Boveri, Ltd., 56, Victoria Street, London, S.W.1.
Bull. Astronomique	Bulletin Astronomique. Gauthier-Villars et Cie, Quai des Grands-Augustins 55, Paris.

V. 19

Abbreviations.	Full Title and Address.
Bull. géodésique	Bulletin géodésique. Organe de l'Association de Géodésie de l'Union Géodésique et Géophysique Internationale. Rue d'Anjou, 78, Paris (8e).
Bull. Oerlikon	Bulletin Oerlikon. Oerlikon, Ltd., Victoria House, Southampton Row, London, W.C.1.
Bureau of Mines, Bull., Economic Papers and Techn. Papers	Publications of the Bureau of Mines. U.S. Department of Commerce, Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
Bureau of Standards, J. of Research, *also* Circ. & Misc. Publ.	Publications of the National Bureau of Standards. Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
Calcutta Math. Soc., Bull.	Bulletin of the Calcutta Mathematical Society. H. P. Banerjee, M.Sc., 53/1, Shambazar Street, Calcutta, India.
Cambridge Phil. Soc., Proc.	Proceedings of the Cambridge Philosophical Society. The Cambridge University Press, Fetter Lane, E.C.4.
Canad. J. of Research	Canadian Journal of Research. National Research Council of Canada, Ottawa, Canada.
Chem. Soc., J.	Journal of the Chemical Society. The Chemical Society, Burlington House, Piccadilly, London, W.1.
Chem. Soc. Japan, Bull.	Bulletin of the Chemical Society of Japan. Faculty of Science, Imperial University of Tokyo, Japan.
Chinese Chem. Soc., J.	Journal of the Chinese Chemical Society. Department of Chemistry, National University of Peking, China.
Coast and Geodetic Survey, Special Publ.	Coast and Geodetic Survey. Special Publications. U.S. Department of Commerce, Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
Colliery Guardian	The Colliery Guardian. 30 and 31, Furnival Street, Holborn, London, E.C.4.
Com. Geod. e. Geofis., Boll. & Publ. (Formerly Com. Naz. Italiano, Geod. e Geofis., Boll).	Bollettino e Publicazioni del Comitato per la Geodesia et la Geofisica del Consiglio Nazionale delle Ricerche. Istituto di Topografia a Geodesia del R. Istituto Superiore di Ingegneria, Piazza Leonardo da Vinci, Città degli Studi, Milano, Italy.
Comptes Rendus	Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Gauthier-Villars et Cie, Quai des Grands-Augustins 55, Paris (6e).
Comptes Rendus de l'Acad. des Sciences, U.S.S.R.	Comptes Rendus de l'Academie des Sciences, Solar Commission, Leningrad, U.S.S.R.
Cornell Univ. Eng. Experiment Sta., Bull.	Bulletin of the Engineering Experiment Station, College of Engineering, Cornell University, Ithaca, New York, U.S.A.
Dept. Sci. & Indust. Research, Publ.	Publications of the Department of Scientific and Industrial Research, H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2.
Die Physik	Die Physik. J. A. Barth, Salomonstrasse 18B, Leipzig, C1, Germany.
Dominion Astrophys. Obs. Victoria, Publ.	Publications of the Dominion Astrophysical Observatory, Victoria. Victoria, B.C., Canada.
Dominion Observat., Ottawa, Publ.	Publications of the Dominion Observatory, Ottawa. Department of the Interior, Ottawa, Canada.
El. Rev.	The Electrical Review. Dorset House, Stamford Street, London, S.E.1.

Abbreviations.	Full Title and Address.
El. Rly., Bus and Tram J.	The Electric Railway, Bus and Tram Journal. Avenue Chambers, Vernon Place, Southampton Row, London, W.C.1.
El. Times	The Electrical Times. Sardinia House, Kingsway, London, W.C.2.
El. World	Electrical World. McGraw-Hill Publishing Co., Inc., 330, West 42nd Street, New York, U.S.A., and Aldwych House, London, W.C.2.
Elect. Communication	Electrical Communication. International Standard Electric Corporation, 67, Broad Street, New York, U.S.A., and Connaught House, Aldwych, London, W.C.2.
Elect. Engineering	Electrical Engineering. Journal of the American Institute of Electrical Engineers, 33, West 39th Street, New York, U.S.A.
Elect. J.	The Electric Journal. 530, Fernando Street, Pittsburg, Pa., U.S.A.
Electrician	The Electrician. Bouverie House, 154, Fleet Street, London, E.C.4.
Electronics	Electronics. The McGraw-Hill Publishing Co., Inc., 330, West 42nd Street, New York, U.S.A., and Aldwych House, London, W.C.2.
Electrot. Laborat. Tokyo, Japan, Circ.	Circulars of the Electrotechnical Laboratory, Tokyo, Japan. Electrotechnical Laboratory, Ministry of Communications, Tokyo, Japan.
Electrot. Laborat. Tokyo, Japan, Researches	Researches of the Electrotechnical Laboratory, Tokyo, Japan. Electrotechnical Laboratory, Ministry of Communications, Tokyo, Japan.
Elek. Betrieb	R.E.A. der Elektrische Betrieb. Georg Siemens, Kurfürstenstrasse 2, Berlin, W.57.
Elek. im Bergbau	Elektrizität im Bergbau. R. Oldenbourg, Glückstrasse 8, Munich 32, Germany.
Elettrotecnica	L'Elettrotecnica. Giornale ed Atti dell' Associazione Elettrotecnica Italiana, Via S. Paolo 10, Milan (103), Italy.
*Energia Elettrica	L'Energia Elettrica. Foro Bonaparte 31, Milano (109), Italy.
Engineer	The Engineer. 28, Essex Street, Strand, London, W.C.2.
Engineering	Engineering. 35 and 36, Bedford Street, Strand, London, W.C.2.
E.N.T.	Elektrische Nachrichten-technik. J. Springer, Linkstrasse 23–24, Berlin, W.9.
Ergeb. d. exakt. Naturwiss.	Ergebnisse der exakten Naturwissenschaften. Hirschwaldsche Buchhandlung, Unter den Linden 68, Berlin, N.W.7.
Ericsson Rev.	Ericsson Review. Telefonaktiebolaget. L. M. Ericsson, Döbelnsgatan 18, Stockholm, Sweden.
Ericsson Technics	Ericsson Technics. Telefonaktiebolaget. L. M. Ericsson, Döbelnsgatan 18, Stockholm, Sweden.
E.T.Z.	Elektrotechnische Zeitschrift. J. Springer, Linkstrasse 23–24, Berlin, W.9.
E. u. M.	Elektrotechnik und Maschinenbau. Theobaldgasse 12, Vienna 6, Austria.
Faraday Soc., Trans.	Transactions of the Faraday Society. Gurney and Jackson, 33, Paternoster Row, London, E.C.4.
Fot. Indust. (now Phot. Indust.)	Fotografische Industrie.
Frank. Inst., J.	Journal of the Franklin Institute. The Franklin Institute of the State of Pennsylvania, Twentieth Street and Parkway, Philadelphia, Pa., U.S.A.

Abbreviations.	Full Title and Address.
G.E.C. J.	G.E.C. Journal. The General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.
Gen. El. Rev.	General Electric Review. The General Electric Co., Schenectady, New York, U.S.A., and Crown House, Aldwych, London, W.C.2.
Geofysiske Publ.	Geofysiske Publikasjoner. Direktor Th. Hesselberg, Det Norske Meteorologiske Institutt, Oslo, Norway.
Geolog. Mag.	The Geological Magazine. Dulau & Co., Ltd., 32, Old Bond Street, London, W.1.
Geophys. Mag., Tokyo	The Geophysical Magazine. The Central Meteorological Observatory, Tokyo, Japan.
Gerlands Beitr. z. Geophys.	Gerlands Beiträge zur Geophysik. Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6, Leipzig, C1, Germany.
Göttingen Nachrichten	Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen. Weidmannsche Buchhandlung, Berlin.
Harvard Coll. Obs., Ann.	Annals of the Harvard College Observatory. The Observatory, Cambridge, Mass., U.S.A.
Harvard Coll. Obs., Bull.	Bulletin of the Harvard College Observatory. The Observatory, Cambridge, Mass., U.S.A.
Harvard Coll. Obs., Circ.	Circular of the Harvard College Observatory. The Observatory, Cambridge, Mass., U.S.A.
Harvard Meteorolog. Studies	Harvard Meteorological Studies. The Blue Hill Observatory of Harvard University, Cambridge, Mass., U.S.A.
Helv. Phys. Acta	Helvetica Physica Acta. E. Birkhäuser et Cie, Bâle, Switzerland.
Hiroshima Journ. Sci.	Journal of Science of the Hiroshima University. Hiroshima University, Hiroshima, Japan.
Hochfrequenztechn. u. Elektroakustik	Hochfrequenztechnik und Elektroakustik, Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6, Leipzig, C1, Germany.
Hokkaido Imp. Univ., Eng. Mem.	Memoirs of the Faculty of Engineering. Hokkaido Imperial University, Sapporo, Japan.
I.E.E., J.	Journal of the Institution of Electrical Engineers. Savoy Place, Victoria Embankment, London, W.C.2.
I.E.E., Japan, J.	Journal of the Institution of Electrical Engineers of Japan. The Denki-Gakkwai, No. 3, 1-Chome, Yûraku-chô, Kôjimachi-ku, Tokyo, Japan.
I.E.E., Students' J.	Students' Quarterly Journal. The Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2.
Illum. Eng., London	The Illuminating Engineer. The Journal of Good Lighting. 32, Victoria Street, London, S.W.1.
Imp. Acad. Tokyo, Proc.	Proceedings of the Imperial Academy of Tokyo, Ueno Park, Tokyo, Japan.
Imp. Marine Obs., Kobe, Japan, Mem.	Memoirs of the Imperial Marine Observatory, Kobe, Japan.
India Meteorolog. Dept., Mem.	Memoirs of the India Meteorological Department. The Manager of Publications, Civil Lines, Delhi, and the High Commissioner for India, India House, Aldwych, London, W.C.2.
India Meteorolog. Dept., Sci. Notes	Scientific Notes of the India Meteorological Department, The Manager of Publications, Civil Lines, Delhi, and the High Commissioner for India, India House, Aldwych, London, W.C.2.

Abbreviations.	Full Title and Address.
Indian Acad. Sci., Proc.	Proceedings of The Indian Academy of Science. Hebbal, Bangalore, India.
Indian. Inst. of Science, J.	Journal of The Indian Institute of Science. The Bangalore Press, Mysore Road, Bangalore City, India.
Indian Journ. Phys.	Indian Journal of Physics and Proceedings of the Indian Association for the Cultivation of Science. 210, Bow-Bazar Street, Calcutta, India.
Indian Phys.-Math., J.	Indian Physico-Mathematical Journal. J. Ghosh, University of Dacca, Bengal, India.
Indust. and Engin. Chem.	Industrial and Engineering Chemistry. The American Chemical Society. Charles L. Parsons, Mills Building, Washington, D.C., U.S.A.
Indust. & Engin. Chem. (Analytical Edition)	Industrial & Engineering Chemistry (Analytical Edition). The American Chemical Society, Charles L. Parsons, Mills Building, Washington, D.C., U.S.A.
Ingegnere	L'Ingegnere. Rivista Tecnica e Sindacale Sindacato Nazionale Fascista Ingegneri, Via Vittorio Veneto, 7, Casella Postale 482, Rome 105, Italy.
Inst. Automobile Eng., J.	Journal of the Institution of Automobile Engineers, Watergate House, York Buildings, Adelphi, W.C.2.
Inst. Civ. Eng., Proc.	Proceedings of the Institution of Civil Engineers. Great George Street, Westminster, London, S.W.1.
Inst. Eng. & Shipbuilders, Trans.	Transactions of the Institution of Engineers and Shipbuilders in Scotland. Elmbank Crescent, Glasgow, Scotland.
Inst. Eng. Australia, J.	Journal of the Institution of Engineers, Australia. Science House, Gloucester and Essex Streets, Sydney, New South Wales, Australia.
Inst. Mech. Eng., Proc.	Proceedings of the Institution of Mechanical Engineers. Storey's Gate, St. James's Park, London, S.W.1.
Inst. of Metals, J.	Journal of the Institute of Metals. 36, Victoria Street, London, S.W.1.
Inst. Naval Architects, Trans.	Transactions of the Institution of Naval Architects. 2, Adam Street, Adelphi Terrace, London, W.C.2.
Inst. Petroleum Technologists, J.	Journal of the Institution of Petroleum Technologists, Aldine House, Bedford Street, Strand, W.C.2.
Inst. Phys. and Chem. Research, Tokyo, Sci. Papers	Scientific Papers of the Institute of Physical and Chemical Research. Komagome, Hongo, Tokyo, Japan.
Inst. Post Office El. Eng., Papers	The Institution of Post Office Electrical Engineers, Printed Papers. The Librarian, General Post Office (Alder House), London, E.C.1.
International Conference on Large H.T. Systems, Paris Papers	Papers of the International Conference on Large High-Tension Systems, Paris Papers. 54, Avenue Marceau, Paris.
I.R.E., Proc.	Proceedings of the Institute of Radio Engineers, 330, West 42nd Street, New York, U.S.A.
Iron and Steel Inst., J.	Journal of the Iron and Steel Institute, 28, Victoria Street, London, S.W.1.
Japanese Journ. Math.	Japanese Journal of Mathematics. The Secretary, National Research Council, Imperial Academy House, Ueno Park, Tokyo, Japan.

Abbreviations.	Full Title and Address.
J. Chem. Phys.	Journal of Chemical Physics. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
J. de Physique et le Radium	Journal de Physique et le Radium. 12, Place de Laborde, Paris (VIIIe).
J. de Radiologie et d'Électrologie	Journal de Radiologie et d'Électrologie. Masson et Cie, Libraires de l'Académie de Médecine, 120, Boulevard Saint-Germain, Paris.
*J. Indust. Hygiene	Journal of Industrial Hygiene. Williams & Wilkins Co., Mt. Royal and Guilford Avenues, Baltimore, Maryland, U.S.A., and Baillière, Tindall & Cox, 8, Henrietta Street, Covent Garden, London, W.C.2.
J. Inst. F.	Journal of the Institute of Fuel. 53, Victoria Street, London, S.W.1.
J. Math. Phys.	Journal of Mathematics and Physics, The Managing Editor, Massachusetts Institute of Technology, Cambridge, Mass., U.S.A.
J.O.S.A.	Journal of the Optical Society of America. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
J. Phys. Chem.	Journal of Physical Chemistry. Williams & Wilkins Co., Mt. Royal and Guilford Avenues, Baltimore, Maryland, U.S.A., and Baillière, Tindall & Cox, 8, Henrietta Street, Covent Garden, London, W.C.2.
Journ. Sci. Instruments	Journal of Scientific Instruments. The Institute of Physics, 1, Lowther Gardens, Exhibition Road, London, S.W.7.
Journ. Télécommunications	Journal des Télécommunications. Bureau de l'Union Internationale des Télécommunications, Berne, Switzerland.
Junior Inst. Eng., J.	Journal of the Junior Institution of Engineers. 39, Victoria Street, Westminster, S.W.1.
K. Akad. Amsterdam, Proc.	Proceedings of the Koninklijke Akademie van Wetenschappen te Amsterdam. Amsterdam, Holland.
K. Onnes Lab., Leiden, Comm.	Communications of the Kamerlingh Onnes Laboratory of the University of Leiden, Leiden, Holland.
Kolloid-Beihefte	Kolloid-Beihefte. Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany.
Kolloid Zeits.	Kolloid Zeitschrift. Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany.
Kyoto Coll. Eng., Mem.	Memoirs of the Kyoto Imperial University College of Engineering, Kyoto, Japan.
Kyoto Coll. Sci., Mem.	Memoirs of the College of Science, Kyoto Imperial University, Kyoto, Japan.
Kyushu Univ., Faculty of Eng., Mem.	Memoirs of the Faculty of Engineering, Kyushu Imperial University, Fukuoka, Japan.
Leeds Philosoph. and Lit. Soc., Proc.	Proceedings of the Leeds Philosophical and Literary Society. Prof. R. Whiddington, The University, Leeds, England.
Lick Observat., Bull.	Bulletin of the Lick Observatory, University of California, U.S.A.
Manchester Phil. Soc., Mem.	Memoirs and Proceedings of the Manchester Literary and Philosophical Society. 36, George Street, Manchester, England.
Mechanical Engineering	Mechanical Engineering. The American Society of Mechanical Engineers, 29, West 39th Street, New York, U.S.A.

Abbreviations.	Full Title and Address.
M.E.E.	Mining Electrical Engineer. Cromwell Buildings, Blackfriars Street, Manchester, England.
Meteorolog. Office, Geophys. Mem. and Prof. Notes	Geophysical Memoirs and Professional Notes of the Meteorological Office. H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2.
Min. Mag.	The Mineralogical Magazine. Humphrey Milford, Oxford University Press, Amen House, Warwick Square, London, E.C.4.
Mines Mag.	Mines Magazine. The Colorado School of Mines, Golden, Colorado, U.S.A.
Monthly Weather Rev.	Monthly Weather Review. Superintendent of Documents, Government Printing Office, Washington, D.C., U.S.A.
M.V. Gazette	Metropolitan-Vickers Gazette. Metropolitan-Vickers Electrical Co., Ltd., Trafford Park, Manchester, England.
*Mysore Univ., J.	The Half-Yearly Journal of The Mysore University. The Bangalore Press, Mysore Road, Bangalore City, India.
Nat. Acad. Sci., Proc.	Proceedings of the National Academy of Sciences. The Home Secretary, The National Academy of Sciences, Constitution Avenue and 21st Street, Washington, D.C., U.S.A.
National Research Council, Bull.	Bulletin of the National Research Council. Publication Office, National Research Council, Constitution Avenue and 21st Street, Washington, D.C., U.S.A.
Nature	Nature. MacMillan & Co., Ltd., St. Martin's Street, London, W.C.2.
Naturwiss.	Naturwissenchaften. Hirschwaldsche Buchhandlung, Unter den Linden 68, Berlin, N.W.7.
N. Cimento	Il Nuovo Cimento. N. Zanichelli, Società Italiana di Fisica, Bologna, Italy.
*Norwegian North Polar Expedition with the "Maud," 1918–1925, Sci. Results	Norwegian North Polar Expedition with the "Maud," 1918–1925, Scientific Results. Geofysisk Institutt, Bergen, Norway.
*Nova Scotian Inst. Sci., Proc.	Proceedings of The Nova Scotian Institute of Science. Halifax, Nova Scotia.
Observatory	Observatory. Taylor and Francis, Red Lion Court, Fleet Street, London, E.C.4.
Onde Élec.	L'Onde Électrique. Bulletin de la Société des Radioélectriciéns, 40, Rue de Seine, Paris (VIe).
Phil. Mag.	The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science. Taylor & Francis, Red Lion Court, London, E.C.4.
Phot. Indust (Formerly Fot. Indust.)	Photographische Industrie. Union Deutsche Verlagsgesellschaft Zweigniederlassung. Krausenstrasse 35-36, Berlin, S.W.19.
Phot. J.	The Photographic Journal. The General Editor, The Royal Photographic Society, 35, Russell Square, London, W.C.1.
Physica	Physica. Martinus Nijhoff, 9, Lange Voorhout, The Hague, Holland.
Physics	Physics. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
Physics in Industry	Physics in Industry. The Institute of Physics, 1, Lowther Gardens, Exhibition Road, London, S.W.7.
Phys. Math. Soc. Japan, Proc.	Proceedings of the Physico-Mathematical Society of Japan. Faculty of Science, Tokyo Imperial University, Tokyo, Japan.

Abbreviations.	Full Title and Address.
Phys. Rev.	The Physical Review. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
Phys. Soc., Proc.	Proceedings of the Physical Society. 1, Lowther Gardens, Exhibition Road, London, S.W.7.
Phys. Zeits.	Physikalische Zeitschrift. S. Hirzel, Königstrasse 2, Leipzig, C.1, Germany.
Phys. Zeits. d. Sowjetunion	Physikalische Zeitschrift der Sowjetunion. Tschaikowskaja 16, Charkow, U.S.S.R.
P.O.E.E.J.	The Post Office Electrical Engineers' Journal. Birch & Whittington, 10, Station Road, Epsom, Surrey.
*Popular Astron.	Popular Astronomy. Carleton College, Northfield, Minnesota, U.S.A.
Power	Power. McGraw-Hill Publishing Co., Inc., 330, West 42nd Street, New York, U.S.A., and Aldwych House, London, W.C.2.
Preuss. Akad. Wiss. Berlin, Abhandlungen	Abhandlungen der Preussischen Akademie der Wissenschaften. 38, Unter den Linden, Berlin.
Preuss. Akad. Wiss. Berlin, Ber.	Sitzungsberichte der Preussischen Akademie der Wissenschaften. 38, Unter den Linden, Berlin.
R. Accad. Navale Livorno, Pubb.	Pubblicazioni del R. Istituto Elettrotecnico e delle Communicazioni dell Marina, Regia Accademia Navale, Livorno, Italy.
*Radio Club of America, Proc.	Proceedings of the Radio Club of America, Inc., 11, West 42nd Street, New York, U.S.A.
Radio Research, Japan, Report	Report of Radio Researches and Works in Japan. The National Research Council of Japan, Imperial Academy House, Ueno Park, Tokyo, Japan.
Radiology	Radiology. The Secretary-Treasurer, The Radiological Society, 607, Medical Arts Building, Syracuse, New York, U.S.A.
Rev. d'Acoustique	Revue d'Acoustique. Les Presses Universitaires de France, 49, Boulevard Saint-Michel, Paris (5e).
Rev. de Mét	Revue de Métallurgie. 5, Cité Pigalle, Paris (IXe).
Rev. d'Optique	Revue d'Optique Théorique et Instrumentale. 3 & 5, Boulevard Pasteur, Paris (15e).
Rev. Modern Physics	Reviews of Modern Physics. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
Rev. Sci. Instruments	Review of Scientific Instruments. The American Institute of Physics, 11, East 38th Street, New York, U.S.A.
R.G.E.	Revue Générale de l'Électricité. 12, Place de Laborde, Paris (VIIIe).
Richerche di Ingegneria	Ricerche di Ingegneria, Sindacato Nazionale Fascista Ingegneri della Confederazione Professionisti a Artisti, Via Vittorio Veneto 7, Casella Postale 482, Rome (105), Italy.
Roy. Astron. Soc. Canada, J.	Journal of the Royal Astronomical Society of Canada. 198, College Street, Toronto, Canada.
Roy. Astron. Soc., Mem.	Memoirs of the Royal Astronomical Society, Burlington House, London, W.1.
Roy. Astron. Soc., M.N.	Monthly Notices of the Royal Astronomical Society. Burlington House, London, W.1.
Roy. Astron. Soc., M.N., Geophys. Supplement	Monthly Notices, Geophysical Supplement of the Royal Astronomical Society, Burlington House, London, W.1.
Roy. Dublin Soc., Proc.	The Scientific Proceedings of the Royal Dublin Society. Ballsbridge, Dublin, Ireland.

Abbreviations.	Full Title and Address.
Roy. Inst., Proc.	Proceedings of the Royal Institution of Great Britain. 21, Albemarle Street, London, W.1.
Roy. Irish Acad., Proc.	Proceedings of the Royal Irish Academy. Hodges, Figgis & Co., Dublin, Ireland.
Roy. Meteorolog. Soc., J.	Quarterly Journal of the Royal Meteorological Society. The Royal Meteorological Society, 49, Cromwell Road, South Kensington, S.W.7.
Roy. Meteorolog. Soc., Mem.	Memoirs of the Royal Meteorological Society. The Royal Meteorological Society, 49, Cromwell Road, South Kensington, S.W.7.
Roy. Soc. Arts, J.	Journal of the Royal Society of Arts. G. Bell & Sons, Ltd., York House, Portugal Street, W.C.2.
Roy. Soc. Canada, Trans.	Transactions of the Royal Society of Canada, Ottawa, Canada.
Roy. Soc. Edinburgh, Proc.	Proceedings of the Royal Society of Edinburgh. Robert Grant & Son, 126, Princes Street, Edinburgh, and Williams & Norgate, 28, Little Russell Street, London, W.C.1.
Roy. Soc. Edinburgh, Trans.	Transactions of the Royal Society of Edinburgh. Robert Grant & Son, 126, Princes Street, Edinburgh, and Williams & Norgate, 28, Little Russell Street, London, W.C.1.
Roy. Soc., Phil. Trans.	Philosophical Transactions of the Royal Society of London. Harrison & Sons, Ltd., 44–47, St. Martin's Lane, London, W.C.2.
Roy. Soc., Proc.	Proceedings of the Royal Society of London. Harrison & Sons, Ltd., 44–47, St. Martin's Lane, London, W.C.2.
Roy. Soc. Victoria, Proc.	Proceedings of the Royal Society of Victoria. Ford & Son, Drummond Street, Carlton, Melbourne, Australia
Roy. Techn. Coll., Glasgow, J.	Journal of the Royal Technical College, Glasgow. Robert Andersen, 142, West Nile Street, Glasgow, C.1, Scotland.
Ryojun Coll. Eng., Mem.	Memoirs of the Ryojun College of Engineering. The Chairman of the Publication Committee. Ryojun College of Engineering, Port Arthur, South Manchuria.
S. African I.E.E., Trans.	Transactions of the South African Institute of Electrical Engineers. Kelvin House, 100, Fox Street, Johannesburg, S. Africa.
Science	Science. The Science Press, Grand Central Terminal, New York, U.S.A.
Seismological Soc. of America, Bull.	Bulletin of the Seismological Society of America. The Stanford University Press, Stanford University, California, U.S.A.
Siemens Zeits	Siemens Zeitschrift. Siemens-Schuckertwerke Aktiengesellschaft, Zentral-Verkehrs-Verwaltung, Berlin-Siemensstadt.
Smithsonian Inst. Astrophys. Obs., Ann.	Annals of The Astrophysical Observatory of The Smithsonian Institution. The Smithsonian Institution, Washington, D.C., U.S.A.
Soc. Belge Élect., Bull.	Bulletin de la Société Belge des Électriciens, Librairie Ramlot Frères et Soeurs, 25, rue Grétry, Bruxelles, Belgium.
Soc. Chem. Indust., Japan, J.	Journal of the Society of Chemical Industry, Japan. Yuraku Building, Marunouchi, Tokyo, Japan.
*Soc. Española de Fis. y Quimica, An.	Anales de la Sociedad Española de Fysica y Quimica. Instituto Nacional de Fisica y Quimica, Serrano 105, Madrid (6), Spain.
Soc. Franc. Élect., Bull.	Bulletin de la Société Française des Électriciens. 8–14, Avenue Pierre Larousse, Malakoff (Seine), France.

Abbreviations.	Full Title and Address.
Soc. Franç. Phot. et. Ciné., Bull.	Bulletin de la Société Française de Photographie et de Cinématographie. Rue de Clichy 51, Paris.
Soc. Glass Technol., J.	Journal of the Society of Glass Technology, Darnall Road, Sheffield 9, England.
Soc. Române Fiz., Bul.	Buletinul Societatii Române de Fizica. Société Roumaine de Physique, Laboratoire d'Acoustique et Optique, Rue Poincaré, 14, Bucarest, Roumania.
Soc. Scien. Fennica Acta and Comm. Phys.-Math.	Societas Scientiarum Fennica, Acta and Commentationes Physico-Mathematicae. Kasarngatan 24, Helsingfors, Finland.
Solar Phys. Obs., Cambridge, Ann.	Annals of the Solar Physics Observatory, Cambridge. The Cambridge University Press, Fetter Lane, London, E.C.4.
Terr. Mag.	Terrestrial Magnetism and Atmospheric Electricity. The John Hopkins Press, Baltimore, Maryland, U.S.A.
T.F.T.	Telegraphen- und Fernsprech-Technik. R. Dietze, Regensburgerstrasse 12A, Berlin, W.50.
Tijds. Nederland Radiogenootschap.	Tijdschrift van het Nederlandsch Radiogenootschap, 11A, Elzentlaan, Eindhoven, Holland.
Tohoku Math. J.	The Tohoku Mathematical Journal. Tohoku Imperial University, Sendai, Japan.
Tohoku Univ., Sci. & Technol. Reports	Scientific and Technology Reports of the Tohoku Imperial University. Maruzen Co., Ltd., Sendai, Japan.
Tokyo B.D., Sci. Reports	Science Reports of the Tokyo Bunrika Daigaku, Section A. Bunrika Daigaku, Koishikawa, Tokyo, and the Maruzen Co., Ltd., Tokyo, Japan.
Tokyo Univ. Aeronaut. Research Inst., Report	Report of the Aeronautical Research Institute, Tokyo Imperial University, Komaba, Tokyo, Japan.
Tokyo Univ. Earthquake Research Inst., Bull.	Bulletin of the Earthquake Research Institute, Tokyo Imperial University, Tokyo, Japan.
Tokyo Univ., Faculty of Eng., J.	Journal of the Faculty of Engineering, Tokyo Imperial University. Maruzen Co., Ltd., Tokyo, Japan.
Tokyo Univ., Faculty of Sci., J.	Journal of the Faculty of Engineering, Tokyo Imperial University. Maruzen Co., Ltd., Tokyo, Japan.
Tsing Hua Univ., Sci. Reports	Science Reports of the National Tsing Hua University, Series A. Peiping, China.
Union Géodésique et Géophysique Internationale, Publ.	Publications de l'Union Géodésique et Géophysique Internationale, Série A. L'Association Internationale de Géodésie, Rue d'Anjou, 78, Paris (8e).
Union Obs. S. Africa, Circ.	Circular of the Union Observatory of South Africa, Johannesburg, S. Africa.
Univ. Durham Phil. Soc., Proc.	Proceedings of the University of Durham Philosophical Society. E. Patterson, Asst. Librarian, Armstrong College, Newcastle-upon-Tyne, England.
Univ. Nac. La Plata, Estudio Ciencias	Universidad Nacionale de La Plata. Contribucion al Estudio de las Ciencias, La Plata, Argentine.
Univ. of Illinois Eng. Exp. Sta., Bull.	Bulletin of the University of Illinois Engineering Experiment Station. University of Illinois, Urbana, Illinois, U.S.A.
*Univ. Pittsburgh, Bull.	Bulletin of the University of Pittsburgh, Pittsburgh, U.S.A.

Abbreviations.	Full Title and Address.
*Univ. Tartuensis, Acta and Comm.	Acta and Commentationes Universitatis Tartuensis (Dorpatensis). Institute of Physics, University of The Estonian Republic, Tartu, Estonia.
V.D.E. Fachberichte	Fachberichte des Verbandes Deutsche-Elektrotechniker. V.D.E. Verlag, Bismarckstrasse 33, Charlottenburg 4, Berlin, Germany.
V.D.I.	Zeitschrift des Vereines Deutscher Ingenieure. V.D.I. Verlag, G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
*Veroff. a. d. Gebiete d. Nachrichtentechn.	Veröffentlichungen aus dem Gebiete der Nachrichtentechnik. Siemens & Halske A.G., Wernerwerk, Berlin-Siemensstadt, Germany.
Washington Acad. Sci., J.	Journal of the Washington Academy of Sciences. Mt. Royal and Guilford Avenues, Baltimore, Maryland, U.S.A.
Wireless Engineer	Wireless Engineer and Experimental Wireless. Messrs. Iliffe & Sons, Ltd., Dorset House, Stamford Street, London, S.E.1.
Wireless World	Wireless World. Dorset House, Stamford Street, London, S.E.1.
Wiss. Veröff. a. d. Siemens-Konzern.	Wissenschaftliche Veröffentlichungen aus dem Siemens-Konzerns. J. Springer, Linkstrasse, 23–24, Berlin, W.9.
World Power	World Power, 62, Lincoln's Inn Fields, London, W.C.2.
Zeits. f. angew. Math. u. Mechanik.	Zeitschrift für angenwandte Mathematik und Mechanik. Ingenieurwissenschaftliche Forschungsarbeiten. V.D.I -Verlag G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Zeits. f. Astrophysik	Zeitschrift für Astrophysik. J. Springer, Linkstrasse 23–24, Berlin, W.9.
Zeits. f. Elektrochem.	Zeitschrift für Elektrochemie und angewandte physikalische Chemie. Verlag Chemie, G.m.b.H., Corneliusstrasse 3, Berlin, W.35.
Zeits. f. Instrumentenk	Zeitschrift für Instrumentenkunde. J. Springer, Linkstrasse 23–24 Berlin, W.9.
Zeits. f. Krist.	Zeitschrift für Kristallographie, Kristallgeometrie, Kristallphysik, Kristallchemie. Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6, Leipzig, C.1, Germany.
Zeits. f. Metallkunde	Zeitschrift für Metallkunde. V.D.I.-Verlag, G.m.b.H., Dorotheenstrasse 40, Berlin, N.W.7.
Zeits. f. phys. Chem., Abt. A. & B.	Zeitschrift für physikalische Chemie (Abteilungen A and B). Akademische Verlagsgesellschaft m.b.H., Markgrafenstrasse 6, Leipzig, C.1, Germany.
Zeits. f. Physik.	Zeitschrift für Physik. J. Springer, Linkstrasse 23–24, Berlin, W.9.
Zeits. f. techn. Physik.	Zeitschrift für technische Physik. J. A. Barth, Salomonstrasse 18B, Leipzig, C.1, Germany.
Zeits. f. wiss. Phot.	Zeitschrift für wissenschaftliche Photographie, Photophysik und Photochemie. J. A. Barth, Salomonstrasse 18B, Leipzig, C.1, Germany.
*Zhurnal Tekhnicheskoy Fiziki	Zhurnal Tekhnicheskoy Fiziki. The State Publishing Office for Technical and Theoretical Matter, Yashumov Per. 10A, Leningrad 21. J. S. Bergson, 4, Vernon Place, Southampton Row, London, W.C.1.